

IN THE CLAIMS:

Amend claims 4, 7-9 and 20 as follows:

1. (Previously Presented) A method for transmitting a signal digitized at a predetermined sampling frequency from a data source to a data sink in a data transmission system having a predetermined operating frequency and having at least one channel with a width of m bits, the digitized signal having an original data word width of n bits, where n is greater than m , the operating frequency being greater than the sampling frequency, the method comprising the steps of:

decomposing each original data word of the digitized signal into at least two partial data words, each partial data word having a width less than m , where n equals fourteen and m equals eight;

assigning an identifier for each of the partial data words that identifies the position of the partial data word in the original data word; and

transmitting the at least two partial data words on the at least one channel.

2. (Previously Presented) The method of claim 1, further comprising the step of reconstructing the original data word from the at least two partial data words through use of the identifier.

3. (Previously Presented) The method of claim 1, where the identifier comprises one bit.

4. (Currently Amended) The method of claim 1, where as many as a partial data words of an original data word are transmitted on the at least one channel when the operating frequency is at least a times the sampling frequency, where a is an integer value.

5. (Previously Presented) The method of claim 4, where a equals two.

6. (Cancelled)

7. (Currently Amended) The method of claim 1, further comprising the steps of:

sampling an analog signal at a resolution of sixteen bits; and
rounding the sixteen-bit sampled ~~analog~~-signal to fourteen bits to obtain each original data word.

8. (Currently Amended) The method of claim 7, further comprising the steps of:

right-shifting bits 2 to 8 of the sixteen-bit sampled ~~analog~~-signal by one bit; and
assigning the identifier to the least significant bit of each of the first and second partial data words.

9. (Currently Amended) The method of claim 1, where the sampled ~~analog~~-signal comprises spoken speech.

10. (Previously Presented) The method of claim 2, where the step of reconstructing the original data word comprises the step of recombining the at least two partial data words into the original data word by shifting each bit of one of the at least two partial data words one bit to the left.

11. (Previously Presented) The method of claim 10, where the two least significant bits of the reconstructed original data word are set to a prescribed value.

12. (Previously Presented) The method of claim 1, where the data sink forwards a digital signal at

the operating frequency by outputting each received data word several times.

13. (Previously Presented) The method of claim 12, where the data sink forwards the digital signal over a low-pass filter.

14. (Previously Presented) The method of claim 1, where the data transmission system is configured and arranged as a MOST network.

15. (Previously Presented) A data source for transmitting a digitized signal with a word width of n bits in a data transmission system, which has at least one channel with a width of m bits, where n is greater than m , comprising a logic circuit to decompose each data word into a plurality of partial words each with a width less than m bits and to add an identifier to at least one of the resulting partial words to identify the position of the partial data word, where the logic circuit shifts bits 2 to 8 of a 16-bit data word of the digitized signal by one bit to the right, and enters an identifier for each of the first and second partial words into the respective least significant bit of the two bytes of the resulting data word.

16. (Cancelled)

17. (Previously Presented) A data sink to reconstruct a digitized signal with a word width of n bits, by means of data transmitted on an m bit-wide channel of a data transmission system, such that n is greater than m , comprising a logic circuit to decompose each received data value into a partial word with a width less than m bits and an identifier, and to recombine the partial words to an original

data word of the digitized signal by means of the identifier, where the logic circuit combines the two received data values with a width of $m = 8$ bits to a 16-bit-wide data word, and shifts the least significant byte of the data word by one bit to the left.

18. (Cancelled)

19. (Previously Presented) The data sink of claim 17, where the logic circuit sets the two least significant bits of the recombined data word to a specified value.

20. (Currently Amended) A method of transmitting and receiving a digital data signal within a data transmission network having at least one channel, comprising the steps of:

digitizing an analog signal to provide an original digital data word having a predetermined number of bits;

reducing the predetermined number of bits of the original digital data word by shifting each one of at least a portion of the predetermined number of bits of the digital data word by one position in a predetermined direction, where at least two partial data words result, a first partial data word comprising the shifted bits together with at least one identifier bit, a second partial data word comprising the unshifted bits together with at least one identifier bit; and

transmitting the at least two partial data words over the at least one channel of the data transmission network.

21. (Previously Presented) The method of claim 20, further comprising the steps of:

receiving the at least two transmitted partial data words;

recombining the at least two partial data words into the original data word by shifting each bit of one of the at least two partial data words in a direction opposite that of the predetermined direction; and

assigning a predetermined logic level to any bit of the recombined original digital data word that does not assume its logic level value as in the original digital data word as a result of the step of recombining.